

WHAT IS CLAIMED IS:

1. A levelling wheel for use in direct sowing and fitted to a furrow-opener device for opening a furrow in the ground, the levelling wheel having a semipneumatic treading band for treading and copying the soil to determine a sowing depth, the treading band having a side area next to the furrow-opener disk, said side area having substantially the form of a depression forming an alveolus between the furrow-opener disk and the surface of the treading band of the levelling wheel that touches the soil, said depression adapted to receive soil pushed aside by the furrow-opener device.

2. The levelling wheel of claim 1, wherein said depression or alveolus is dimensioned in accordance with the soil pushed aside by the furrow-opener disk.

3. The levelling wheel of claim 2, wherein the soil pushed aside by the furrow-opener disk is considered in a substantially uncompressed state in dimensioning said depression or alveolus.

4. The levelling wheel of claim 3, wherein said depression is dimensioned such that the cross-section of said alveolus is about 30% greater than the cross-section of the soil pushed aside by the furrow-opener disk.

5. The levelling wheel of claim 1, wherein said depression or alveolus extends between one- and two-thirds of the width of said treading band of the levelling wheel.

6. The levelling wheel of claim 1, wherein said the profile of said treading band has a substantially cylindrical treading surface that progressively flattens off until it joins to a surface belonging to the maximum depth of such depression or alveolus adjacent said furrow-opener.

7. The levelling wheel of claim 6, wherein said profile of the treading band generally follows a sine-wave shape where the treading surface in itself joins the surface that belongs to the maximum depth of the depression or alveolus, terminating in a cleaning tab that leans against the furrow-opener disk on assembly.

8. The levelling wheel of claim 1, wherein said treading band has inner bearing chords.

9. The levelling wheel of claim 8, wherein said chords include at least one chord that limits the depressed side area and the surface of the treading band that bears on the soil.

10. The levelling wheel of of claim 1, wherein said treading band is sufficiently resilient to avoid wet soil getting stuck thereto and for absorbing terrain unnevenness.

11. A covering wheel used in either direct or pretilled sowing, the covering wheel including a treading band to push loose soil at the side of the open furrow into the furrow again onto the seed to promote germination and emergence, wherein said treading band is provided with a

plurality of substantially conical studs projecting radially outwards from the treading band and evenly distributed in a circular array around the treading band.

12. The covering wheel of claim 11, wherein said the studs form an angle with the plane of the wheel and the height and diameter of said studs depend on the treading band width.

13. The covering wheel of claim 11, wherein said treading band is semipneumatic.

14. The covering wheel of claim 11, wherein said treading band has a trapezoidal cross-section.

15. The covering wheel of claim 11, wherein said treading band maintains a face at around 30% in relation to the horizontal; the number of studs resulting from dividing said treading band into spaces of about 1,7 and 2 times the square root of the radius of wheel 35, the base of the studs occupying around 90% of the treading band width and the cone height being between 1 and 1.2 times the base diameter.

16. A tandem comprising a covering wheel and a levelling wheel for use in direct sowing, the levelling wheel having a semipneumatic treading band for treading and copying the soil to determine a sowing depth, the treading band having a side area next to the furrow-opener disk, said side area having substantially the form of a depression forming an alveolus between the furrow-opener disk and the

surface of the treading band of the levelling wheel that touches the soil, said depression adapted to receive soil pushed aside by the furrow-opener device; and

the covering wheel including a treading band to push loose soil at the side of the open furrow into the furrow again onto the seed to promote germination and emergence, wherein said treading band is provided with a plurality of substantially conical studs projecting radially outwards from the treading band and evenly distributed in a circular array around the treading band.